

2011

**NASA Range Safety
Annual Report**

SUMMARY

Range Safety was involved in a number of exciting and challenging activities and events in 2011 involving the development, implementation, and support of range safety policies and procedures.

Range Safety representatives took part in a number of panels and councils, including the Range Commanders Council Range Safety Group and its subgroups. Range Safety representatives from NASA HQ Office of Safety and Mission Assurance, KSC, DFRC, and WFF are actively supporting the Range Safety Group. DFRC is currently the Flight Termination Systems Committee Chair while WFF became the RSG Chair in 2011 and led the entire RSG.

Advancing our effort to provide training at various levels of Range Safety, NASA Range Safety has conducted over 48 training courses for NASA, DoD, FAA, and contractor personnel. Over 900 students have participated to date, with 684 students participating in 26 Range Safety Orientation courses. While NSTC funding for this training has been significantly reduced, the Commercial Crew Program has requested that NASA Range Safety provide all four NASA Range Safety training courses to their program and other interested parties.

Range Safety also participated in the evaluation of several emerging technologies, including the Autonomous Flight Safety System (AFSS) for expendable launch vehicles. AFSS software and testing requirements are being developed using funding provided by the Ground Systems Development and Operations (GSDO) Program. There will be a Software Requirements Review with interagency support early in 2012. GSDO is also supporting development of a tab in the NASA Joint Advanced Range Safety System (JARSS) software to output the mission safety rules in the XML format AFSS needs. Major JARSS accomplishments this year include expanded training on the toolsets, updated training materials for JARSS Mission Planning, and successful support of the safe landing of the X-37B Orbital Test Vehicle (OTV) at Vandenberg Air Force Base. Without JARSS, the 30th Space Wing could not have met the critical time lines for this mission.

Most memorably, NASA Range Safety supported the final 3 Space Shuttle launches and landings in 2011. For the past 30 years, the United States Space Program has lifted men and women from all corners of the Earth into space on the shoulders of the Space Shuttle. Earlier this year, on July 21, 2011, Space Shuttle Atlantis touched down at Kennedy Space Center after a 12 day mission to the International Space Station. As we turn the pages on the lives of the Space Shuttles and see what they have accomplished, it is truly remarkable: 135 flights, dockings with two different space stations, putting satellites into orbit, the Hubble telescope, and countless manned experiments conducted in low Earth orbit.

For all the achievements of the Shuttle program, let us not forget the brave astronauts who lost their lives in the name of exploration. For the crews of Columbia (STS-107) and Challenger (STS-51L), who paid with their lives, Godspeed, and you will always be in our prayers. For the men and women on the ground who have dedicated their lives to processing and launching the Space Shuttle, we are all sad to see this program end, but we are anxious to see what the future brings.

We hope you found our web-based format for the Range Safety Annual Report to be usable and informative. As we move into 2012, we look forward to the opportunities and challenges of ensuring the safety of NASA activities and operations.

Anyone having questions or wishing to have an article included in the 2012 Range Safety Annual Report should contact Alan Dumont, the NASA Range Safety Program Manager located at the Kennedy Space Center, or Michael Dook at NASA Headquarters.